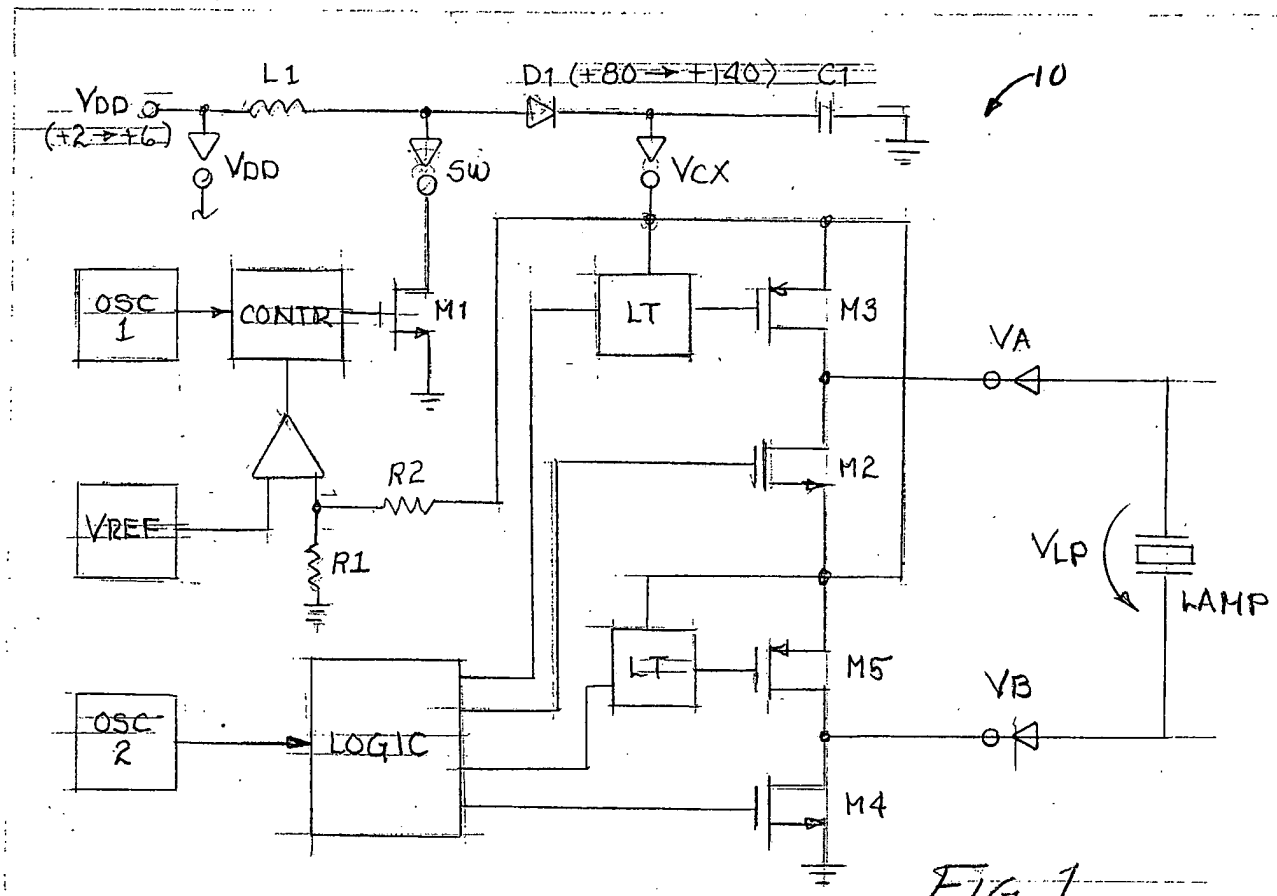
10
L1
D1 (+80 → +140)
CT
VDD
(+2 → +6)
VDD
SW
VCX
OSC 1
CONTR
M1
LT
M3
VA
M2
R2
VREF
R1
VLP
LAMP
LT
M5
VB
OSC 2
LOGIC
M4

FIG. 1

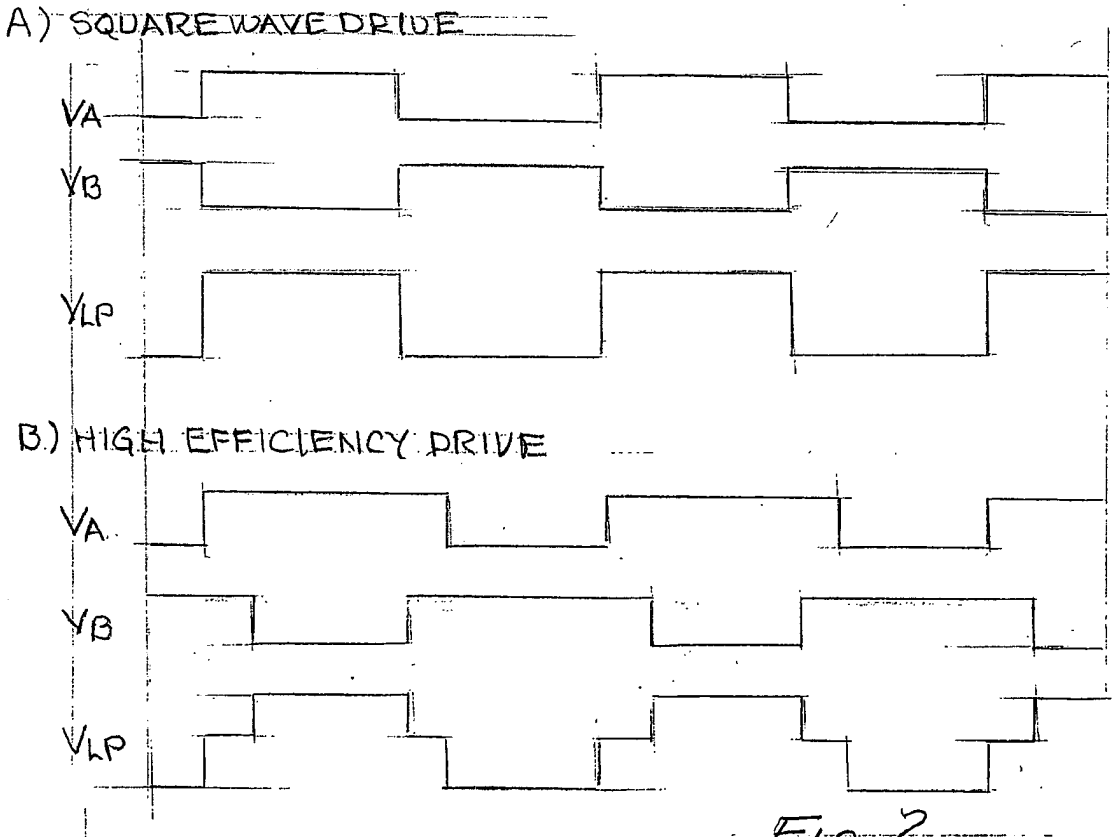
A) SQUARE WAVE DRIVE
VA
VB
VLP
B.) HIGH EFFICIENCY DRIVE
VA
VB
VLP

Fig 2

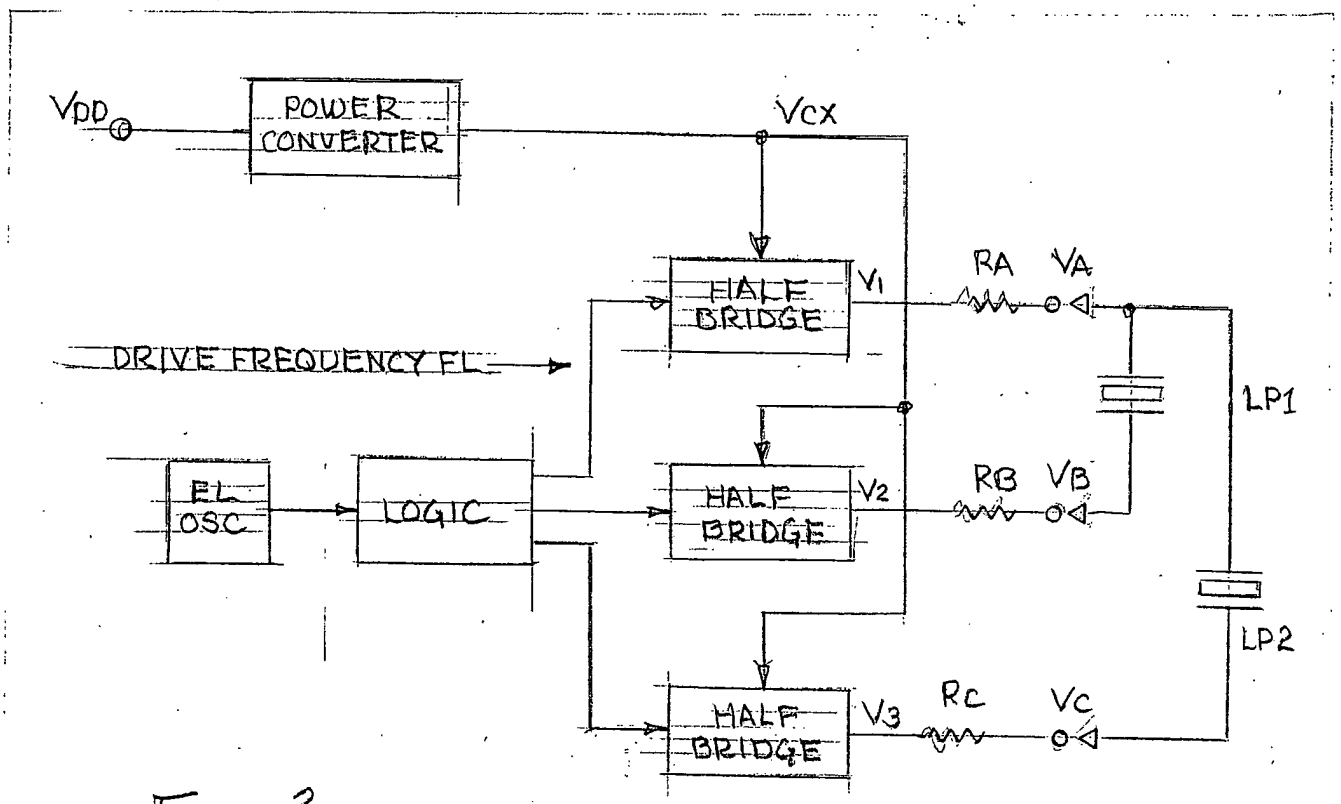


FIG. 3 MULTIPLE OUTPUT EL LAMP DRIVER

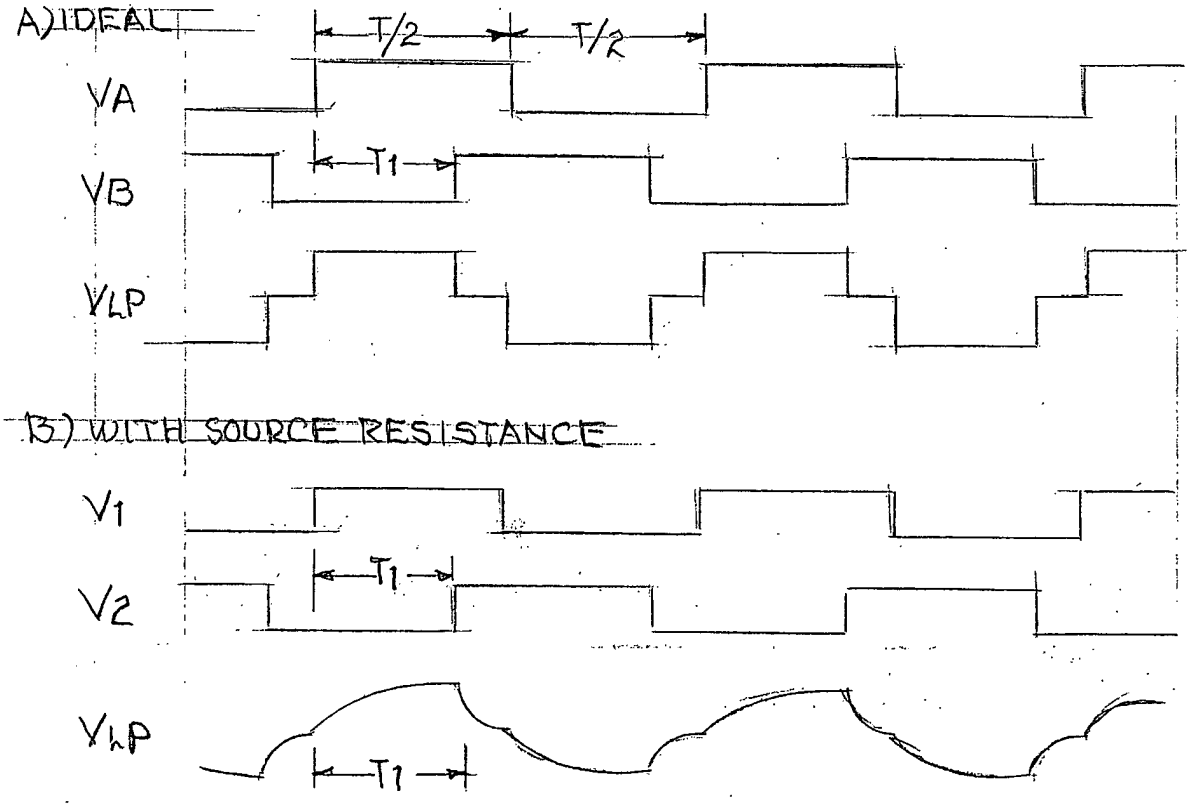


FIG. 4 PHASE SHIFTED DRIVE WAVEFORMS

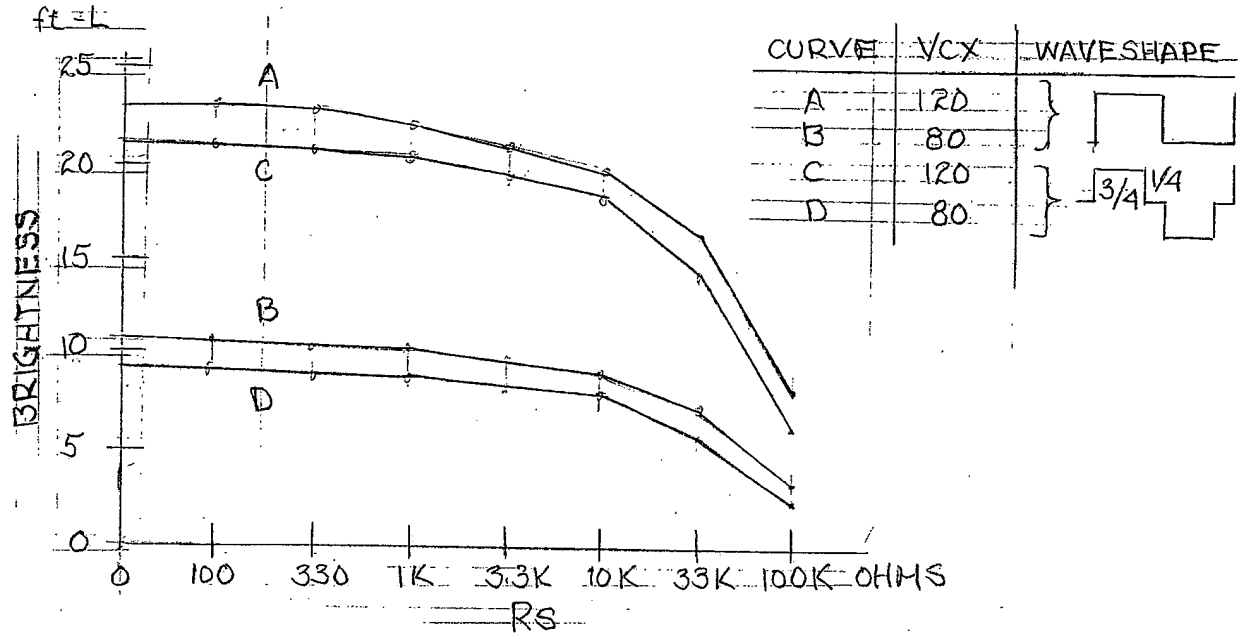


FIG. 5 LAMP BRIGHTNESS VS SERIES RESISTANCE Rs
F=500Hz 19X50mm LAMP

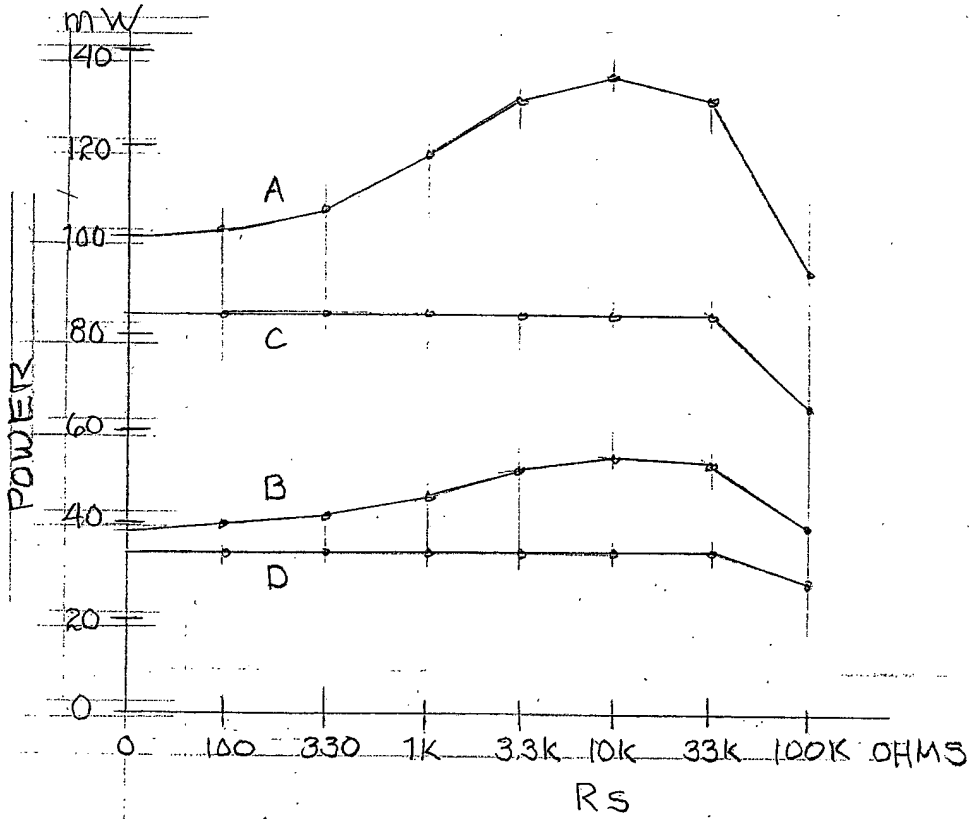


FIG. 6 LAMP POWER VS SERIES RESISTANCE
F=500Hz 19X50 mm LAMP

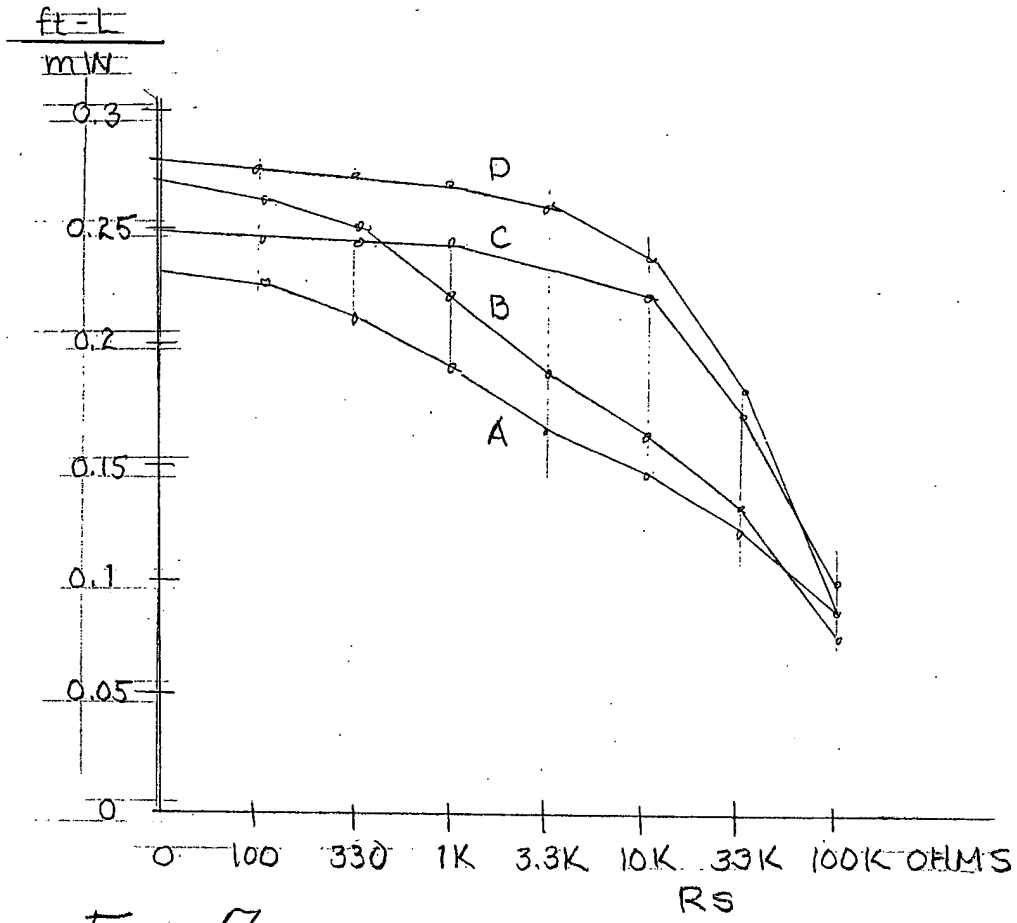


FIG. 7 LAMP EFFICIENCY VS SERIES RESISTANCE
F = 500 Hz 19 x 50 mm LAMP

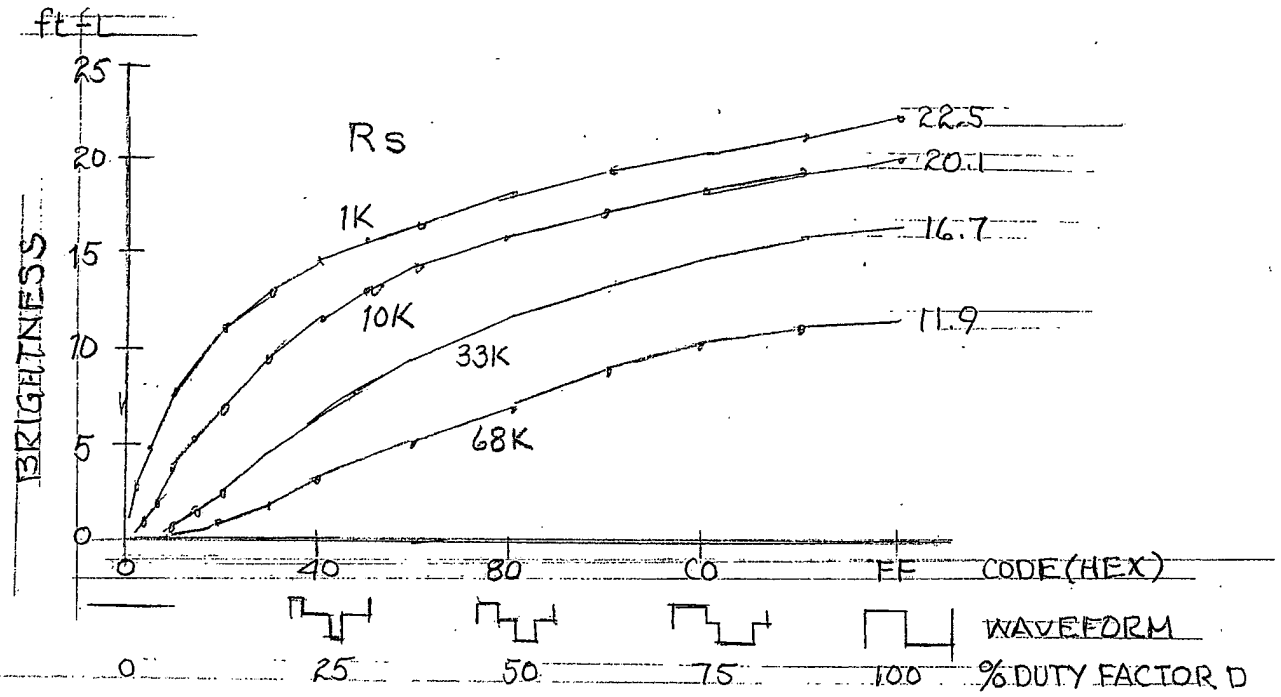


FIG. 8 LAMP BRIGHTNESS VS DUTY FACTOR
VCX = +120 F = 500 HZ 19X50 MM LAMP

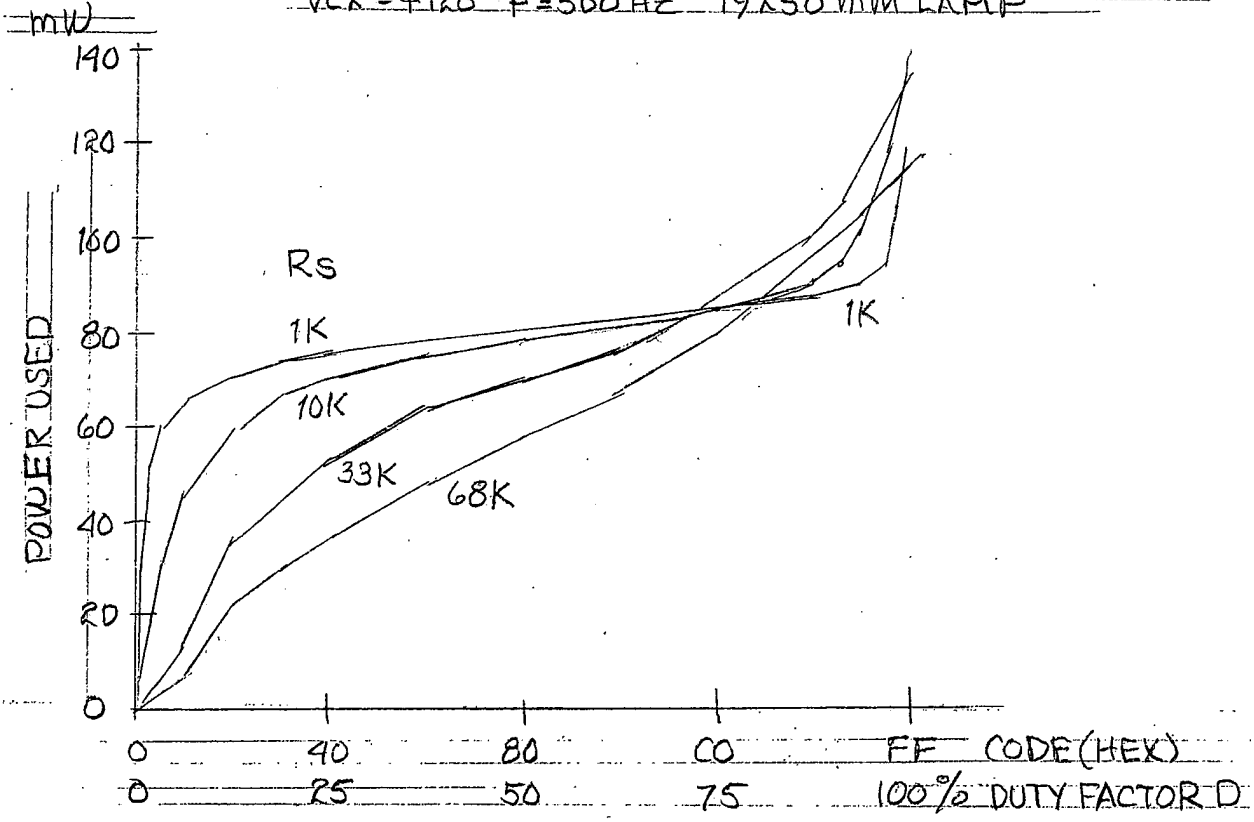


FIG 9 LAMP POWER VS DUTY FACTOR
VCX = +120 F = 500 Hz 19X50mm LAMP

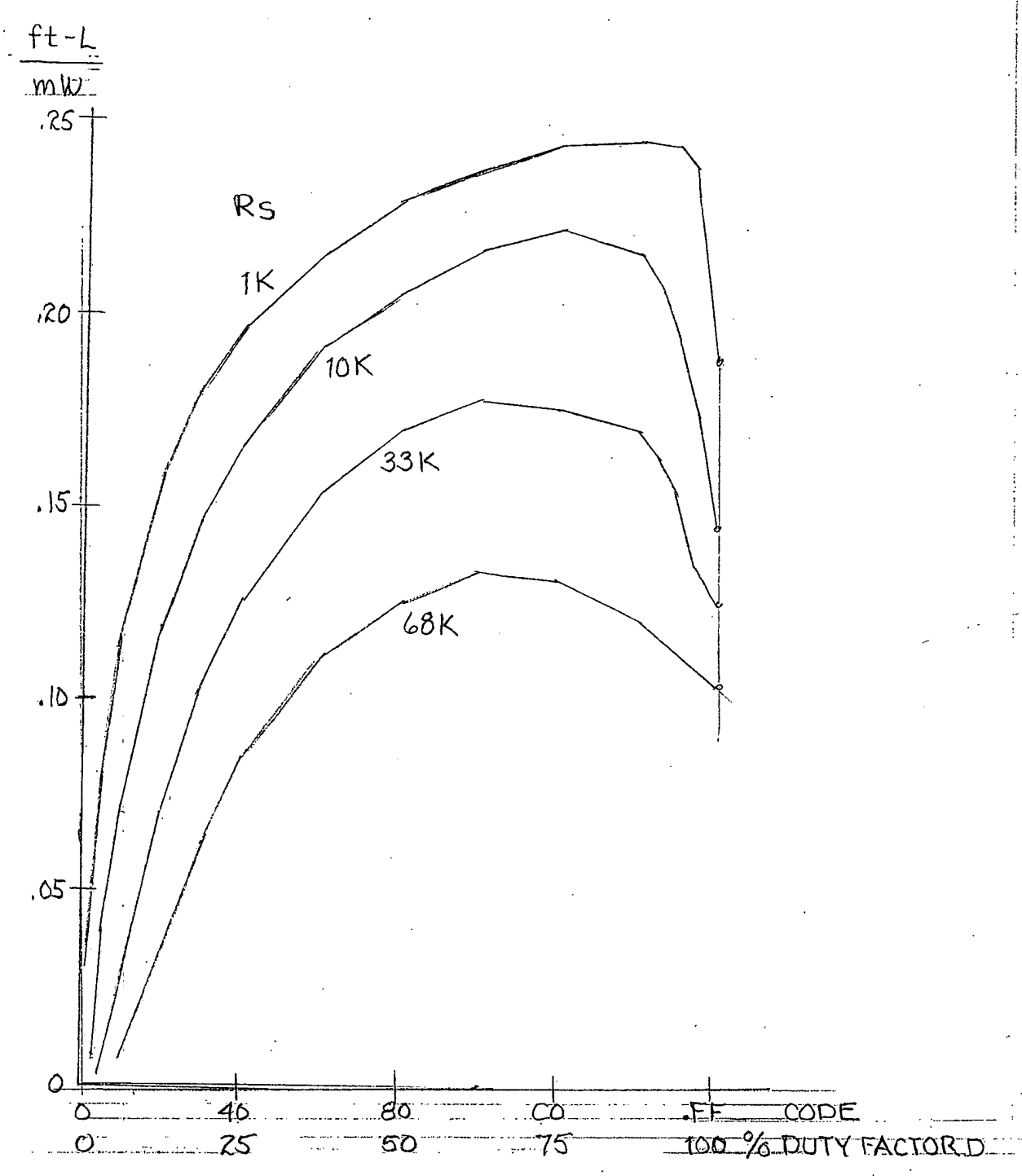


FIG. 10 LAMP EFFICIENCY VS DUTY FACTOR

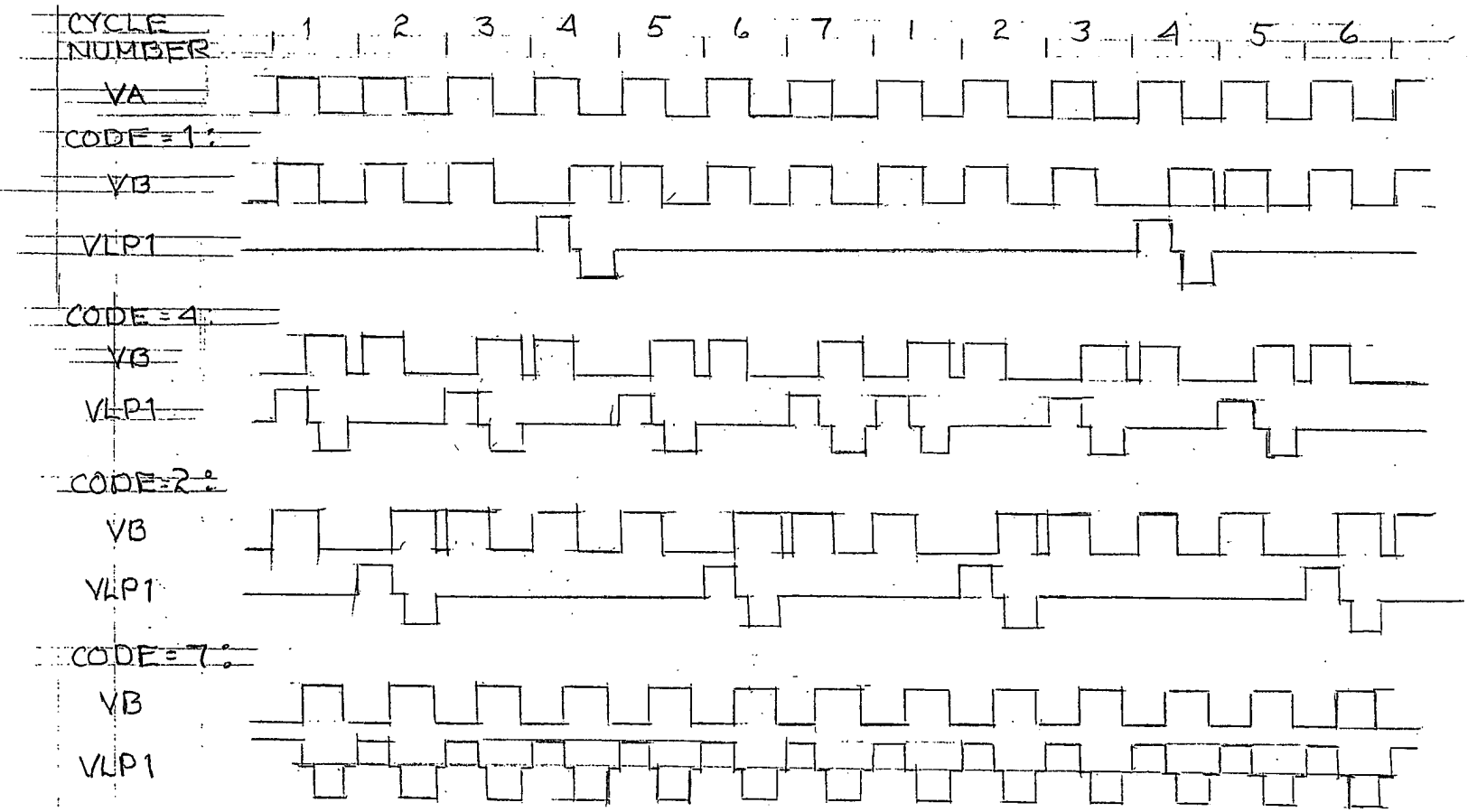


Fig. 11 AVERAGE FREQUENCY CONTROL

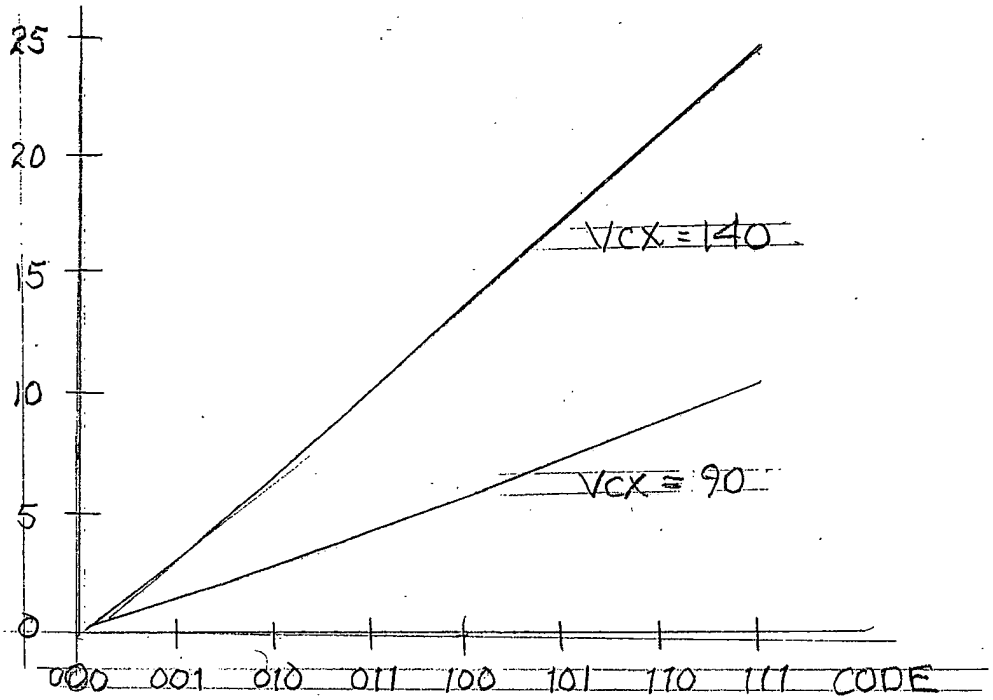


FIG 12 METHOD 2 - BRIGHTNESS
F = 500 HZ 19 x 50 mm LAMP
RS = 3.3 KΩ 3/4 DUTY PULSES

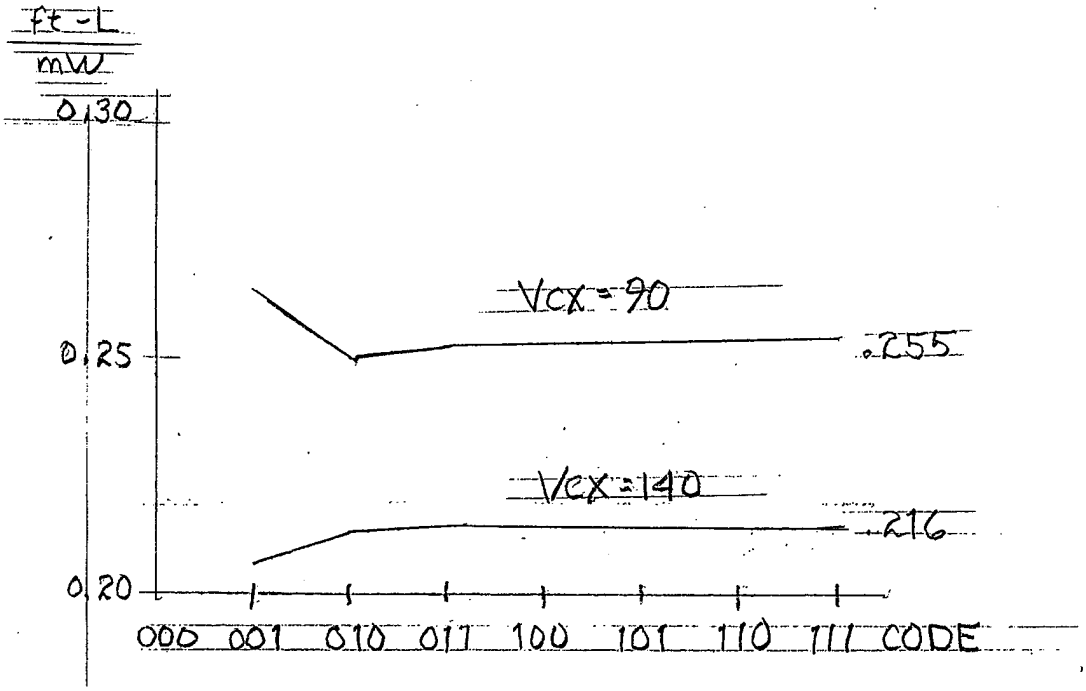


FIG 13 METHOD 2 EFFICIENCY

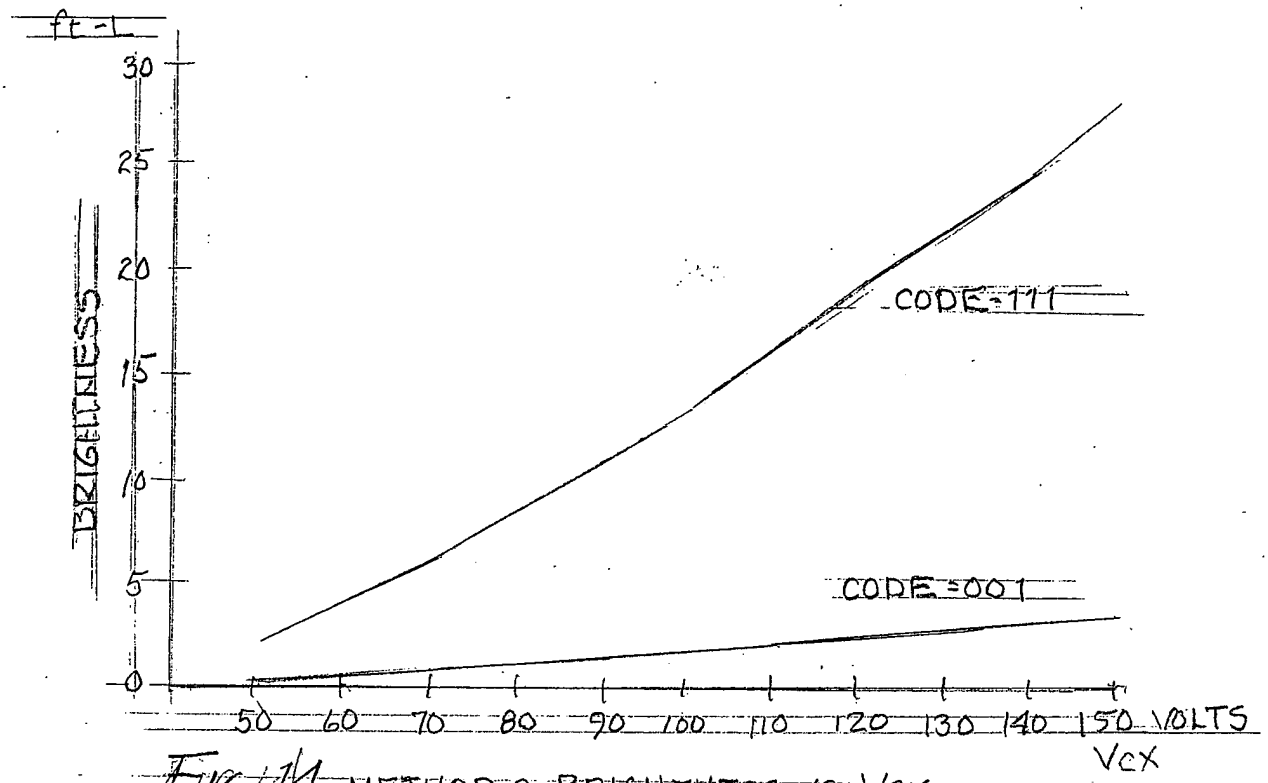


FIG. 14 METHOD 2 BRIGHTNESS VS VCX
F=500HZ 19X50 MM LAMP
RS=3.3K 3/4:1/4 DUTY PULSES

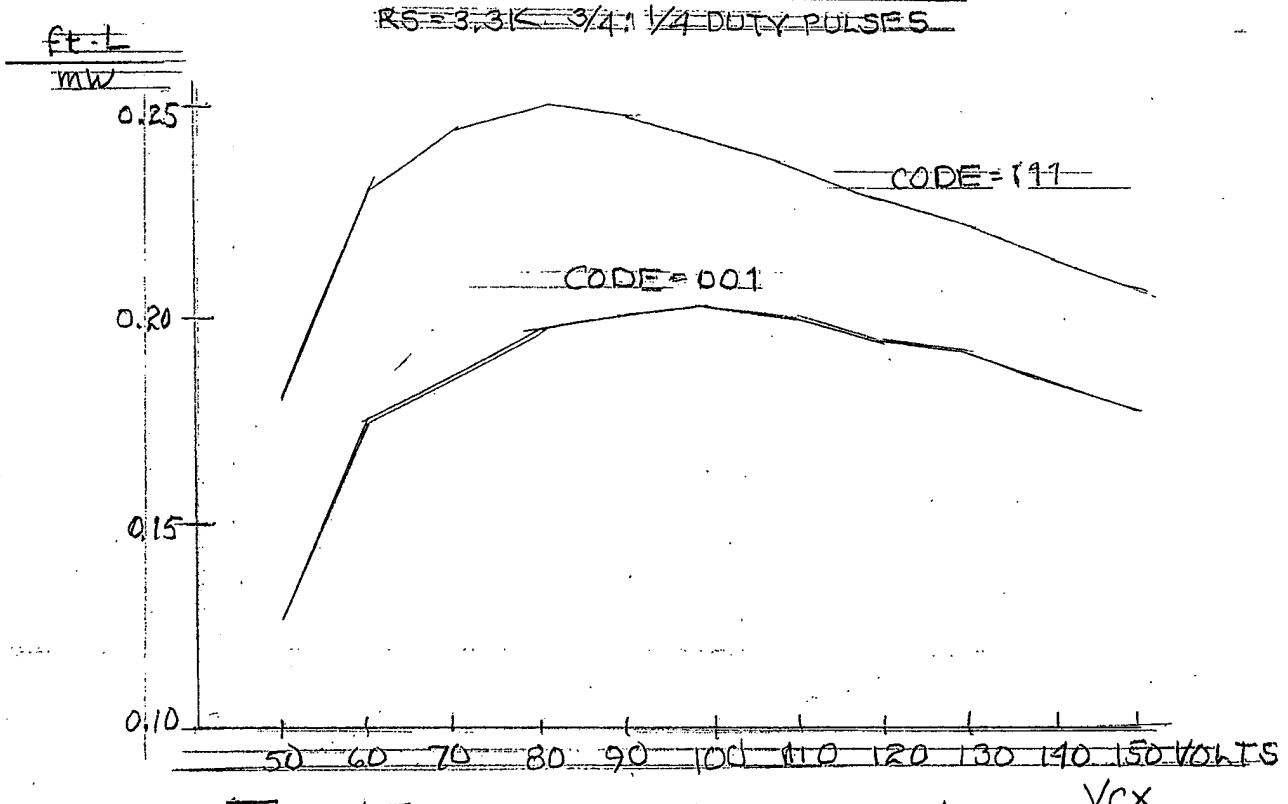


FIG. 15 METHOD 2 EFFICIENCY VS VCX
F=500HZ 19X50 MM LAMP
RS=3.3K 3/4:1/4 DUTY PULSES

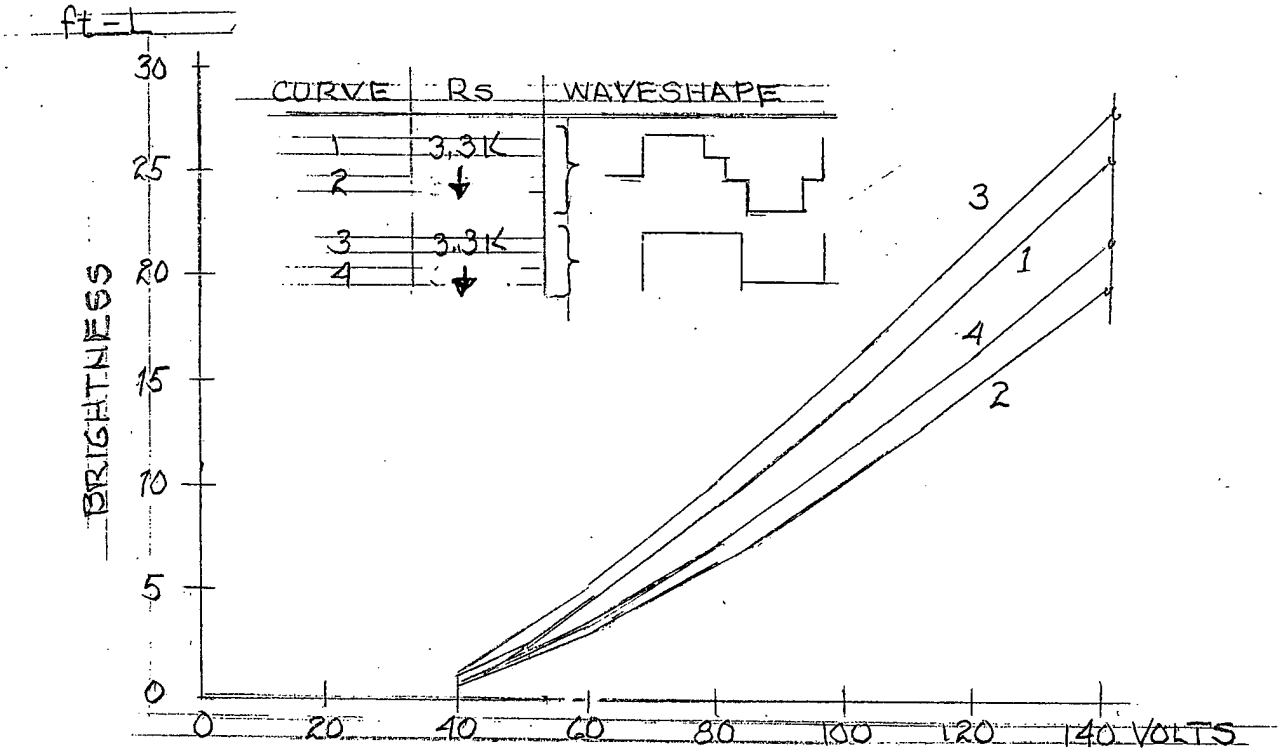


FIG. 16 LAMP BRIGHTNESS VS Vcx
F=500 Hz 19X50mm LAMP

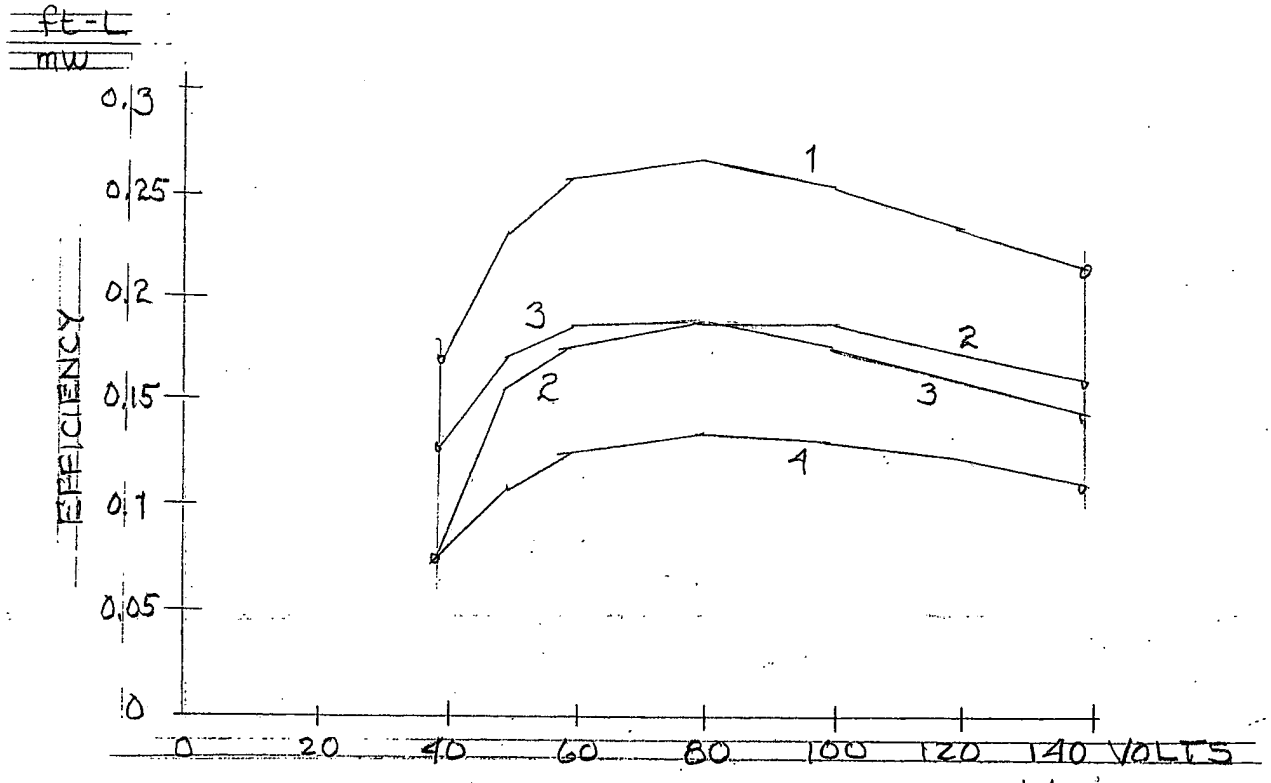


FIG. 17 LAMP EFFICIENCY VS Vcx
F=500 Hz 19X50 mm LAMP

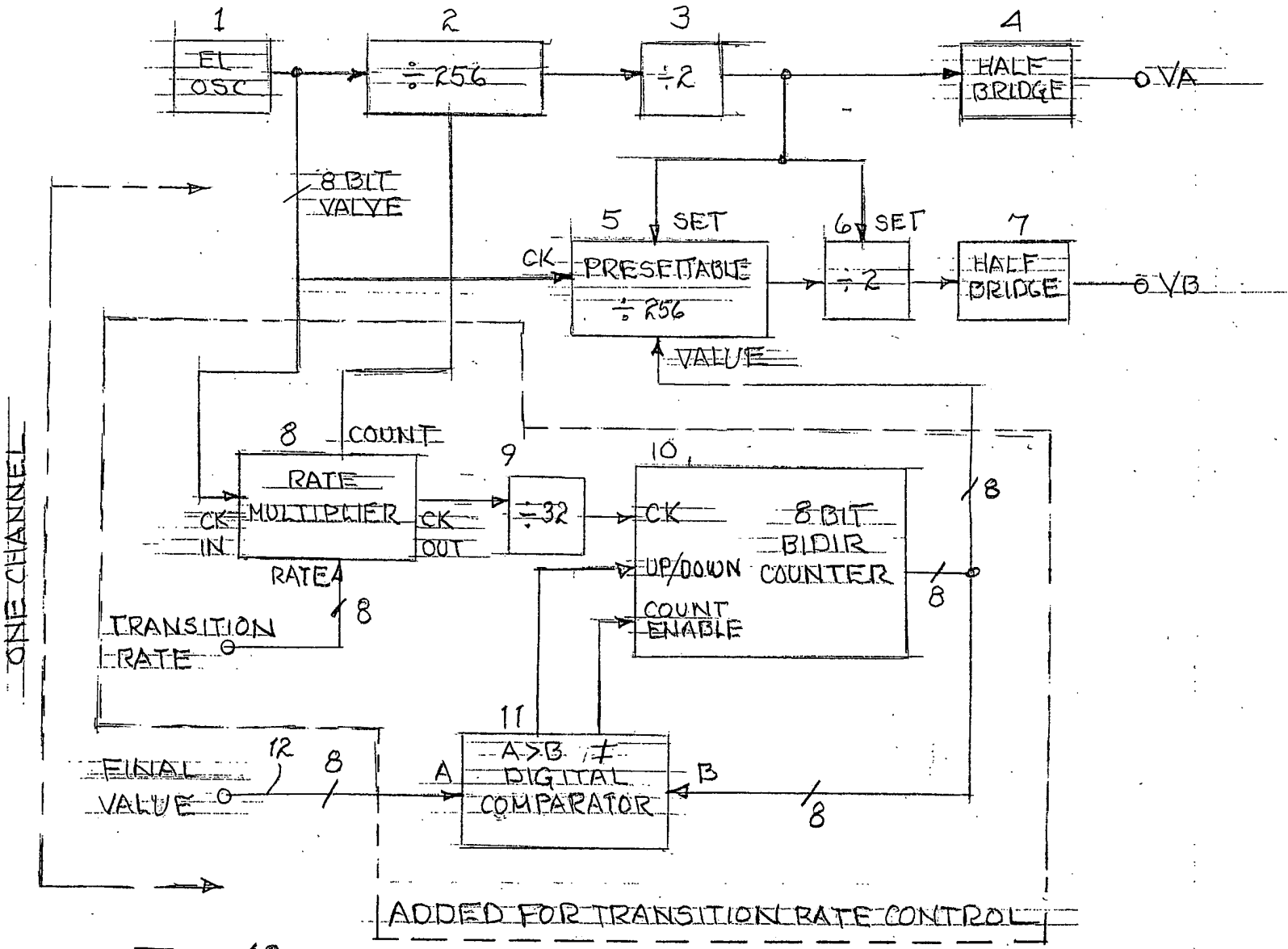


FIG. 18 VARIABLE TRANSITION RATE PHASE CONTROL

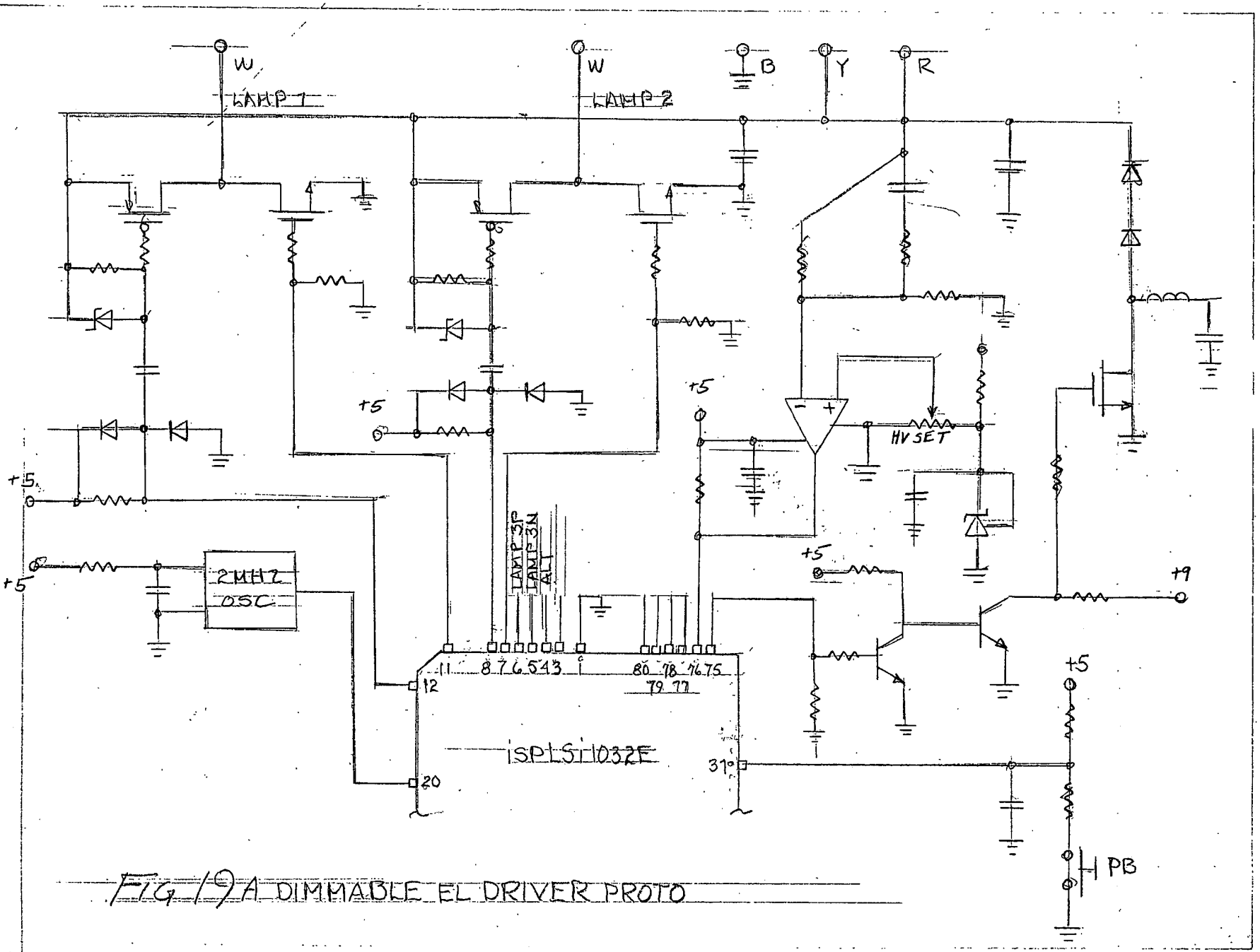


FIG 19A DIMMABLE EL DRIVER PROTO

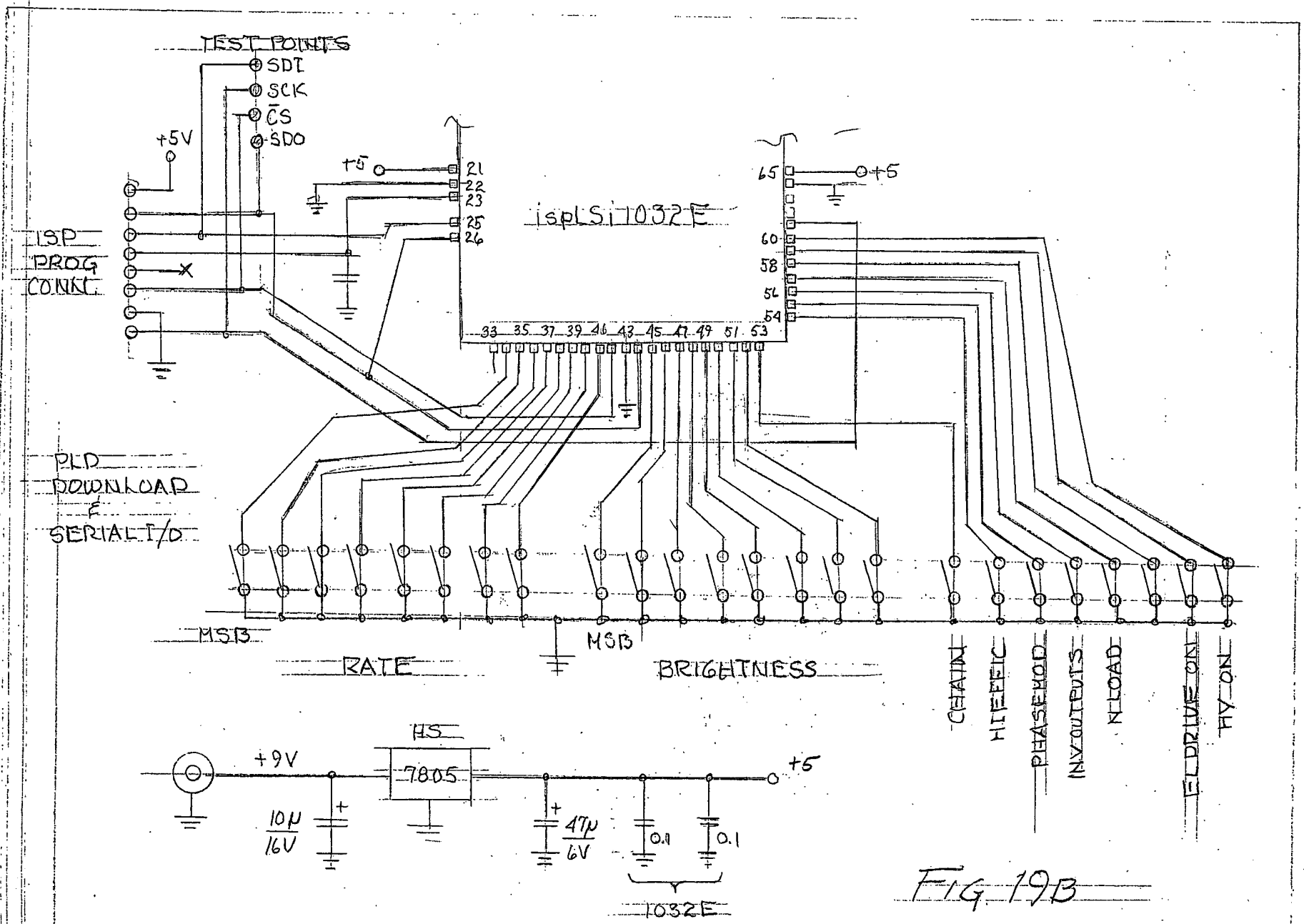
TEST POINTS
SDI
SCK
CS
SDO
+5V
ISP
PROG
CONN.
+5
21
22
23
25
26
ispLSI1032E
65
+5
60
58
56
54
33 35 37 39 46 43 45 47 49 51 53
PLD
DOWNLOAD
&
SERIAL I/O
MSB
RATE
MSB
BRIGHTNESS
CHAIN
HIFREQ
PHASEMOD
INVOUTPUTS
NLOAD
ELDRIVE ON
HV_ON
+9V
10μ
16V
HS
7805
+5
47μ
6V
0.1
0.1
1032E

FIG 19B